

DOCUMENT RESUME

ED 051 134

SP 005 036

TITLE Regional Educational Laboratories.
INSTITUTION Office of Education (DHEW), Washington, D.C. Bureau of Research.
SPONS AGENCY Office of Education (DHEW), Washington, D.C. Bureau of Research.
REPORT NO OE-12030
PUB DATE 68
NOTE 25p.
AVAILABLE FROM Supt. of Documents, Government Printing Office, Washington, D.C. 20402 (No. PS5.212:12030, \$0.35)
EDRS PRICE EDRS Price MF-\$0.65 HC Not Available from EDRS.
DESCRIPTORS *Curriculum Development, *Educational Development, *Educational Research, *Instructional Innovation, *Research and Development Centers

ABSTRACT

This document contains progress reports on some of the ongoing activities of the Regional Educational Laboratories, whose primary objective is to create and demonstrate a variety of tested alternatives to existing educational practice. In each instance the address and region served are given, together with information on the governing board and staff and a brief outline of the programs. The 18 laboratories included are Appalachia Educational Laboratory Center for Urban Education, Central Atlantic Regional Educational Laboratory, Central Midwestern Regional Educational Laboratory, Cooperative Educational Research Laboratory, Inc., Eastern Regional Institute for Education, Education Development Center, Inc., Far West Laboratory for Educational Research and Development, Mid-Continent Regional Educational Laboratory, Northwest Regional Educational Laboratory, Regional Education Laboratory for the Carolinas and Virginia, Research for Better Schools, Inc., Rocky Mountain Educational Laboratory, South Central Regional Educational Laboratory, Southeastern Education Laboratory, Southwest Educational Development Laboratory, Southwest Regional Laboratory for Educational Research and Development, Southwestern Cooperative Educational Laboratory, and Upper Midwest Regional Educational Laboratory. (NBM)

DISCRIMINATION PROHIBITED Title VI of the Civil Rights Act of 1964 states: "No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance." Therefore, the Regional Educational Laboratory program, like every program or activity receiving financial assistance from the Department of Health, Education, and Welfare, must be operated in compliance with this law.

ED051134

OE-12030

PROCESS WITH MICROFICHE
AND PUBLISHER'S PRICES.
MICROFICHE REPRODUCTION
ONLY.

REGIONAL EDUCATIONAL LABORATORIES

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRO-
DUCED EXACTLY AS RECEIVED FROM
THE PERSON OR ORGANIZATION ORIG-
INATING IT. POINTS OF VIEW OR OPIN-
IONS STATED DO NOT NECESSARILY
REPRESENT OFFICIAL OFFICE OF EDU-
CATION POSITION OR POLICY.

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE / Wilbur J. Cohen, Secretary
OFFICE OF EDUCATION / Harold Howe II, Commissioner
BUREAU OF RESEARCH / Norman J. Boyan, Acting Associate Commissioner

SP003036

2

FOREWORD

One of the major objectives of the Bureau of Research is to encourage the development of validated educational ideas and inventions that may be adopted at the local level. The Regional Educational Laboratories represent a major instrument of the Bureau for achieving this objective, with special emphasis on developing and demonstrating new educational products and methods of instruction.

The following progress reports have been prepared by the Division of Educational Laboratories staff to provide information about some of the ongoing activities of the laboratories. Because of the brevity of this report, only general information supplemented with a few examples can be presented. Individuals interested in details about a particular laboratory's activities should write directly to its director.

Howard F. Hjeltn, *Director,*
Division of Educational Laboratories.

CONTENTS

INTRODUCTION	1
APPALACHIA EDUCATIONAL LABORATORY	2
CENTER FOR URBAN EDUCATION	3
CENTRAL ATLANTIC REGIONAL EDUCATIONAL LABORATORY	4
CENTRAL MIDWESTERN REGIONAL EDUCATIONAL LABORATORY	4
COOPERATIVE EDUCATIONAL RESEARCH LABORATORY, INC.	6
EASTERN REGIONAL INSTITUTE FOR EDUCATION	7
EDUCATION DEVELOPMENT CENTER, INC.	8
FAR WEST LABORATORY FOR EDUCATIONAL RESEARCH AND DEVELOPMENT	9
MICHIGAN-OHIO REGIONAL EDUCATIONAL LABORATORY	10
MID-CONTINENT REGIONAL EDUCATIONAL LABORATORY	10
NORTHWEST REGIONAL EDUCATIONAL LABORATORY	11
REGIONAL EDUCATION LABORATORY FOR THE CAROLINAS AND VIRGINIA	12
RESEARCH FOR BETTER SCHOOLS, INC.	13
ROCKY MOUNTAIN EDUCATIONAL LABORATORY	13
SOUTH CENTRAL REGION EDUCATIONAL LABORATORY	14
SOUTHEASTERN EDUCATION LABORATORY	15
SOUTHWEST EDUCATIONAL DEVELOPMENT LABORATORY	16
SOUTHWEST REGIONAL LABORATORY FOR EDUCATIONAL RESEARCH AND DEVELOPMENT	17
SOUTHWESTERN COOPERATIVE EDUCATIONAL LABORATORY	18
UPPER MIDWEST REGIONAL EDUCATIONAL LABORATORY	19

Superintendent of Documents Catalog No. FS 5.212:12030

U.S. GOVERNMENT PRINTING OFFICE / WASHINGTON / 1968

For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C., 20402 - Price 35 cents

5

INTRODUCTION

1

The central mission of the program of Regional Educational Laboratories is to speed the pace of intelligent application and widespread utilization of the results of educational research and development.

The primary objective of the program is to create and demonstrate a rich array of tested alternatives to existing educational practice, with choice of adoption resting in the hands of local school systems.

WHAT REGIONAL EDUCATIONAL LABORATORIES ARE

Title IV of the Elementary and Secondary Education Act of 1965 provided authorization for the U.S. Office of Education to initiate the establishment of the Regional Educational Laboratories.

The sponsors and architects of the legislation believed that no single existing institution was strategically located or empowered to relate effectively all segments of the educational community whose involvement was necessary to produce quality educational change in quantity. They were convinced that establishment of a new "institution" was required to stimulate a powerful educational partnership of individuals and agencies with a wide variety of jurisdictional responsibilities to tie research and development more closely to classroom practice. Together with the Research and Development Centers established earlier, the Regional Educational Laboratories now constitute a truly national program.

The development of a network of Regional Educational Laboratories was guided by the following ideas:

The laboratory would be an institution established to achieve a significant increase in educational quality on a national scale.

The laboratory would bring together individuals from State departments of education, public and private schools, colleges and universities, schools of education, and industrial and cultural organizations who would know the educational problems of an area, who would be competent to design and direct programs attacking those problems, and who would have the experience and authority to operate in the jurisdictions affected by such programs.

The laboratory would be designed as an

independent, nonprofit corporation with its own governing board and management, capable of making decisions regarding specific program objectives, attracting the resources—personnel, funds, and facilities—necessary to realize those objectives, and directing the operations by which those objectives would be attained.

Twenty Regional Educational Laboratories were founded between February and September 1966. Each laboratory has identified strategic program areas related to educational problems of national significance; each has established its own form of government, drawing broadly on the human resources of its region; and each has assembled a staff appropriate to program goals.

WHAT REGIONAL EDUCATIONAL LABORATORIES DO

The primary activities of the Regional Educational Laboratories fall under the heading of educational development. Development is a demanding, exacting, time-consuming, and expensive process. It involves precise program formulation designed to culminate in a production of thoroughly tested materials, procedures, and organizational forms for instruction and administration in schools. Development involves systematic field-testing and continuous refinement of originally designed materials, procedures, and organizational forms.

Development precedes and anticipates credible demonstrations that make tested alternatives visible and acceptable to schools and other educational institutions. These demonstrations constitute a crucial stage in the diffusion and widespread adoption of improved practices. The laboratories are responsible for insuring the demonstration of their "products" and for securing the involvement of other groups whose participation is essential in the diffusion of these products.

In each laboratory, one or more major development efforts is now underway. The ultimate test of these efforts is their demonstrated effect upon the improvement of school practice.

The following is a brief progress report of the operations and accomplishments of the 20 new institutions that comprise the network of Regional Educational Laboratories.

APPALACHIA EDUCATIONAL LABORATORY

- Address** 1416 Kanawha Boulevard
Charleston, W. Va. 25325
- Region** West Virginia and parts of Ohio,
Pennsylvania, Virginia, Tennessee,
and Kentucky.
- Governing Board** The laboratory is governed by a
32-member board of directors
drawn from both the educational
and lay community in the region.
Stanley O. Ikenberry, dean of the
College of Human Resources and
Education at West Virginia Uni-
versity, is chairman of the board
and its smaller 11-man executive
committee.
- Staff** The laboratory is directed by
Benjamin E. Carmichael, former
superintendent of schools in Chat-
tanooga, Tenn., who has been with
the laboratory since Dec. 1, 1966.
The laboratory has 25 professional
staff members.

Since its inception the Appalachia Educational Laboratory (AEL) has sought an effective method of attacking educational problems caused by the geography and isolation of the Appalachian region. Its early experience led the laboratory to the conclusion that major changes which would offer a comprehensive breakthrough in educational practices in the region could not be implemented through the existing educational structure or by using conventional approaches. The laboratory then committed itself to the stimulation of a network of "educational cooperatives" throughout Appalachia which, through the intelligent application of media, technology, and shared resources, could significantly upgrade the quality and breadth of education in isolated rural schools. The laboratory will design specifications for a model cooperative and develop and adapt curriculums and materials for utilization in a cooperative.

The model will specify all potential components of a cooperative, including management and operating procedures, equipment and facilities, and selection and training of necessary personnel. In developing these specifications, the laboratory is working with a number of agencies that can provide specialized assistance. The laboratory has also established field sites where specific components can be tested. The product of this work will be a comprehensive description of the various components and their interrelationships which schools and other agencies can use in the actual establishment of educational cooperatives.

AEL has identified three areas for major work in the development and adaptation of curriculums and materials for use in the cooperatives: vocational guidance, early childhood education, and "Appalachia-focused" language. In vocational guidance, programs in job orientation, occupational information, and placement are being modified for radio and television. A home-oriented preschool program conducted primarily through television and mobile facilities is being developed to compensate for the absence of kindergartens throughout the region. A study of the dialects of the Appalachian region, conducted by the Center of Applied Linguistics in Washington, D.C., has provided the impetus for developing a language program directed toward the region's specific language problems. The laboratory is also exploring the adaptation of a variety of other subject-matter curriculums to instructional media for use in educational cooperatives.

CENTER FOR URBAN EDUCATION

Address	105 Madison Avenue New York, N.Y. 10016
Region	Metropolitan New York and some neighboring cities
Governing Board	The laboratory is governed by a 17-member board of trustees com- posed of representatives from eight of New York City's higher education institutions, the super- intendent of New York City Schools, and several industrial and civic leaders. The board's chair- man is John H. Fischer, president of Teachers College, Columbia University.
Staff	The laboratory has a full-time staff of more than 130, 85 of whom are professionals. The Center is headed by Robert A. Dentler, pro- fessor of sociology and education, and formerly executive officer of the Institute of Urban Studies, Teachers College.

The Center for Urban Education (CUE) has as its goal the improvement of educational practice within metropolitan area communities. To reach this goal, the Center develops improved educational programs and models for school-community interaction through the work of staff committees concerned with curriculum and community development. The committees are supported by staff units which provide services in educational personnel development, social and field research, evaluation, and dissemination.

The curriculum committee is developing strategies for introducing into urban school systems, on a mass basis, instructional programs which would insure early literacy. The Center is supporting the development of a comprehensive curriculum for disadvantaged pre-kindergarten children, as well as a long-term field test of various approaches to beginning reading, which is now operating in over 50 New York City public schools. The laboratory is also field testing instructional programs in

science, mathematics, the arts, and social studies for the early grades, and is evaluating the effects of preschool Montessori training. Plans are underway to develop a comprehensive guidance system for new elementary teachers which will present an integrated set of instructional offerings and alternatives. The Center is also planning to develop curriculum programs that are multicultural in emphasis and take into account the vocabulary that urban children acquire in their nonschool experiences.

The community development committee directs its efforts toward assisting school systems in northern metropolitan areas to reduce inequalities in their educational services and provide for effective community participation in the schools. The center is conducting long-term studies of the effects of integration programs in the communities of Bridgeport, Conn., and Glen Cove, N.Y., and is assisting these communities in developing and implementing their integration programs. The Center is also exploring the concept of the educational park as a means of providing quality integrated education and studying the effects of school decentralization in selected subdistricts of New York City.

The Center currently publishes a bimonthly periodical, *The Urban Review*, and has completed a number of monographs and books, including: *Language and the Education of the Deaf*, by Herbert Kohl, *Participants and Participation* (in New York City School Policy), by Marilyn Gittell; *The Urban R's*, edited by Robert Dentler, Bernard Mackler, and Mary Ellen Warshauer; *The Negro in Schoolroom Literature*, by Minnie Koblitz; and *Big City Dropouts*, by Robert Dentler.

CENTRAL ATLANTIC REGIONAL EDUCATIONAL LABORATORY

- Address** 1200 17th Street, N.W.
Washington, D.C. 20036
- Region** District of Columbia, Maryland, parts of Delaware, West Virginia, and Virginia
- Governing Board** The laboratory is governed by a 20-member board of directors drawn from State departments of education, public and parochial schools, universities and schools of education, and leading cultural organizations. Lloyd H. Elliott, President of George Washington University, is chairman.
- Staff** C. Taylor Whittier, former superintendent of schools in Philadelphia, came to the laboratory as director in May 1967. The laboratory has 28 professional staff members with competence in psychology, child development, arts and humanities education, instructional media, and school administration.

The Central Atlantic Regional Educational Laboratory (CAREL) is developing curriculum materials in art, music, theater, dance, and literature for students from 3 to 9 years of age.

The laboratory's first major activity was to sponsor a 6-week conference in July and August 1967. Elementary school teachers, artists, and art educators worked together to specify the goals for art instruction in terms of behavioral objectives, the observable achievements which children can make. Efforts were made to put these goals in sequence and describe specific teaching exercises to use with children to reach the goals.

During the 1967-68 school year, the teachers used and refined these teaching goals and materials. The central staff of the laboratory observed and assisted the teachers while developing a general framework for their arts program and writing and organizing goals and teaching materials. Artists and art educators, serving as consultants, assist the teachers and staff members in developing sound programs in art, music, theater, dance, and literature.

Short-term activities have been undertaken as the laboratory considers additional activities to supplement its arts program. One of these activities involves work with the Washington, D.C., Public School System to help implement the report prepared by Harry Passow of Columbia University, which evaluated the school system; another involves work with nearby school systems, planning cooperative efforts in special education; a third is a cooperative effort with two area school systems and Research for Better Schools, Inc., to install, on an experimental basis, Individually Prescribed Instruction (IPI) in mathematics.

As an outgrowth of its long-range planning activities, CAREL also is developing plans for a model early childhood Learning Center.

CENTRAL MIDWESTERN REGIONAL EDUCATIONAL LABORATORY

- Address** 10646 St. Charles Rock Road
St. Ann, Mo. 63074
- Region** Eastern Missouri, southern Illinois, central and western Tennessee, and Kentucky
- Governing Board** The laboratory is governed by a 50-member board of directors drawn from both the educational and lay community of the four States in the region. Jacqueline Grennan, president of Webster College, serves as chairman of the board and the seven-member executive committee.
- Staff** Wade M. Robinson, former associate director of the Graduate Institute of Education at Washington University, has served as director of the laboratory since February 15, 1966. The professional staff numbers approximately 37.

The Central Midwestern Regional Educational Laboratory (CEMREL) has set the broad mission of improving instruction and curriculum in the classrooms of its region and the nation, and assisting in the improvement of educational planning and school organization and management. Major activities are underway in six areas.

In its Comprehensive School Mathematics Program (CSMP), the laboratory is developing a K-12 mathematics curriculum which will individualize mathematics study according to the students' abilities and interests. The curriculum will be composed of a series of activity packages which make use of a variety of media, including films, tapes, and computers. Four production teams are developing the curriculum packages, and over 200 children are participating in a limited field test of the first 10 packages. A plan for training teachers as the curriculum program develops is underway, the first teachers to participate in a summer session in 1968. The first year's activity is jointly sponsored by the laboratory and Southern Illinois University.

In 1966 the laboratory contracted for a 3-year research and assessment study of the impact of Educational Laboratory Theatres operating in Providence, R.I., New Orleans, and Los Angeles. Through joint funds from ESEA titles III and IV and the National Endowment for the Arts, resident professional companies of actors are providing live drama to over 115,000 secondary school students in the three cities. Curriculum packages, study guides, audiovisual materials, seminars, demonstrations, lectures, and in-theater workshops accompany the live performance. CEMREL is now planning to develop a K-12 curriculum in aesthetic education. A comprehensive plan will identify major concepts, specify behavioral objectives, and present alternatives for sequencing. The laboratory will also appraise existing behavioral research and assessment instruments in the arts to identify additional research necessary for the curriculum development. A computer-assisted indexing and retrieval system will be designed to assist in curriculum development management. Actual curriculum development is scheduled to begin in March 1969.

With the cooperation of the Metropolitan St. Louis Social Studies Center, the local school districts, and an ESEA title III grant, CEMREL has encouraged the use of exemplary new social studies curriculums in 24 schools in the St. Louis area. The schools have been organized into four clusters. One school in each cluster functions as the center of curriculum activity, selecting one of the curriculums for adaptation and implementation. Following a year of pilot-testing in the central school, the curriculum is diffused to the five other schools. Over a 3-year period, social studies teachers in all 24 schools will participate in selecting and implementing new social studies curriculums. Having provided the initial stimulus for the activity, the laboratory's primary interest is in evaluating the effectiveness of the implementation model.

Through activities with preschool, elementary, and junior high students, CEMREL is seeking to define specific teaching techniques for children with learning difficulties. A "social exchange system," consisting primarily of reward for desirable behavior, has been used to develop beginning reading skills in normal and culturally disadvantaged children, more appropriate social behavior in autistic and hyperactive children, and more effective speech in nonverbal, culturally disadvantaged children. In the junior high school, special teaching techniques have been developed to deal with students with normal or above average intelligence whose academic performance has been consistently poor. Specially trained teachers have used such techniques as individualization, multisensory instructional aids, perceptual training, and a special tutorial experience in an effort to improve student attitude and self-concept, and improve academic performance.

The laboratory is also conducting the evaluation of a computer-aided instruction program involving the joint action of the Stanford University Institute for Mathematical Studies in the Social Sciences, an ESEA title III school consortium in eastern Kentucky, Appalachia, and Morehead State University at Morehead, Ky. The primary purpose is to improve the arithmetic skills of children in grades 1-6 in small rural schools in Appalachia. Additional target populations include adults enrolled in basic literacy classes and the teachers, administrators, and parents of the children in the elementary schools. Both student achievement and the social impact of the computer as a mode of instruction in a rural area will be evaluated.

Lastly, the laboratory is committed to the development and application of educational information systems to help improve educational planning and school organization and management. Activities include urban and regional educational planning, student-machine interface study, school data-systems design, a survey of the region for educational uses of computers to be issued as a directory, and a survey of regional innovative practices, which also will be compiled in a directory. Through a variety of activities, CEMREL is involving individuals and agencies throughout its region in the development of a computer utility which, like a telephone utility, will provide computer services to widely dispersed customers — schools, universities, and allied educational organizations — at a price the majority can afford. Having collected over 8,000 items in its Educational Materials Center, the laboratory is also seeking to join with other centers to develop an information storage, retrieval, and dissemination system which will make new materials available to small schools.

COOPERATIVE EDUCATIONAL RESEARCH LABORATORY, INC.

- Address** 540 West Frontage Road
Northfield, Ill. 60093
- Region** Indiana, parts of Illinois and Michigan, and Wisconsin jointly with Upper Midwest Regional Educational Laboratory
- Governing Board** The laboratory is governed by a nine-man board of control whose chairman is David Clark, dean, School of Education, University of Indiana. The board is elected by a regional council which is broadly representative of educational institutions and lay public.
- Staff** The laboratory has built a staff of about 20 professionals. The staff is led by David M. Jackson who joined the laboratory at the beginning of the first contract. He was formerly associate dean, College of Education, University of Illinois.

The Cooperative Educational Research Laboratory, Inc. (CERLI) is focusing on speeding innovation in schools by creating new roles for personnel and developing new tasks for existing roles. The laboratory has identified two new roles for development, "continuing education leader" and "evaluator."

Utilizing results of socio-psychological research on adult learning and social change, the laboratory has developed an initial description of the leader: a member of a school system who works with small groups of his peers to effect changes in their behavior after receiving special training in the use of selected teaching skills and practices. The leader confronts his associates with new teaching practices, using such feedback techniques as videotapes and various instruments for assessing professional behavior. CERLI has also designed a training curriculum and pilot-tested it in three locations. A followup study of the first groups of trainees who are functioning as leaders in their schools is being conducted.

Efforts are underway to refine the training program and to develop additional materials and strategies for training the leaders and sup-

porting them in their work with teachers. The laboratory is also adapting the training program for acquainting top-level administrators in a large urban school system with the program prior to more widespread training. Early in 1968 the laboratory began to test this adaptation in the Chicago schools preliminary to introducing the role throughout the school system.

The "evaluator" role is designed to help educational institutions evaluate innovative practices and programs. The laboratory is also identifying the key tasks necessary for implementing sound evaluation procedures in schools. CERLI has been awarded a contract by the Illinois State Program for the Gifted to evaluate its program to promote innovation in the teaching of the gifted, and this program will provide the first "evaluators" an opportunity for training and practice.

EASTERN REGIONAL INSTITUTE FOR EDUCATION

- Address** 635 James Street
Syracuse, N.Y. 13203
- Region** New York State (excepting metropolitan New York City) and western Pennsylvania
- Governing Board** The laboratory is governed by a 12-man board of directors drawn from a 44-man council composed of leaders from all educational levels and representatives of industry and cultural groups. David Krathwohl, dean of the School of Education, Syracuse University, is the chairman of the board and council.
- Staff** The laboratory has a staff of about 45 of whom 30 are professionals, 10 serving part-time. The staff is led by N. Sidney Archer, former director of research, Pennsylvania Department of Public Instruction, who has been with the laboratory since June 1, 1966.

The Eastern Regional Institute for Education (ERIE) has as its mission the design and engineering of promising prototype school systems comprised of compatible elements that have been developed, designed, and tested by ERIE and by others. To this end, the laboratory is working on three programs.

The ADEPT program (Across Disciplines Education—Process Tactics) has been established to develop an instructional system, including teaching methods and materials, aimed at increasing competence in those general learning processes underlying the various subject-matter disciplines. Initial work has been underway in designing a model to plot specific learning processes. ERIE plans to refine the model, develop a first approximation of a cross-disciplinary instructional system, and design curricular materials for the system.

The laboratory is also conducting a program to design one prototype elementary school that will demonstrate a complete system of individualized instruction. The laboratory has established a working relationship with an elementary school in Syracuse, N.Y., conducted a teachers workshop, and begun to field-test instructional components of the system. The Individually Prescribed Instruction system developed by the Pittsburgh Learning Research and Development Center will be an element of the program, and ERIE will design further instructional devices and techniques to create a total individualized system. This instructional system will form the basis of the educational park model ERIE is currently helping the city of Syracuse to plan.

The laboratory has a program to design a system for installing and monitoring a new curriculum in schools of diverse characteristics. The curriculum selected to test the system is *Science—A Process Approach*. ERIE has trained 250 teachers and administrators in 19 schools in its region who are now utilizing the curriculum in grades K through 3, and has observed and monitored the program in each school. Work is underway to train fourth-grade teachers in the schools to use the curriculum and to design and disseminate an engineering "manual" (a multi-media effort which is to include components such as printed materials, audiovisuals, and demonstrations) that will show other schools how to adopt the curriculum successfully.

EDUCATION DEVELOPMENT CENTER, INC.

Address	55 Chapel Street Newton, Mass. 02160
Region	Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont
Governing Board	The laboratory is governed by a 15-member board of trustees chaired by Franklin Lindsay, president of the Itek Corporation, and composed of three officers of the corporation and individuals from within and without the region.
Staff	The laboratory was formed through a merger of Education Services, Inc., with a staff of 400, and the Institute for Educational Innovation, with a staff of six professionals. The new corporation, originally headed by Arthur Singer, former president of Educational Services, Inc., is currently directed by Kevin Smith, formerly of the Educational Services, Inc., film studio, and a cabinet of six vice presidents.

The Education Development Center, Inc., (EDC) was created through a merger in January 1967 of Education Services, Inc., a curriculum development corporation, and the Institute for Educational Innovation, which had been established as the New England Regional Educational Laboratory. As a laboratory, the Center is implementing a Pilot Communities Program aimed at helping specific communities and their schools improve the quality of their educational programs.

As an initial effort, the laboratory is creating a resource team and resource center for each of the four communities of Bridgeport, Conn., Brunswick-Rockland, Maine, Boston, and the Cardozo district of Washington, D.C. The resource centers will be places where teachers, administrators, parents, and community leaders may come to learn about new curriculum materials and the ways in which they might be used in educational programs in the community. The resource teams will be made up of master teachers trained to use currently available curriculum materials and work with the individuals and agencies in a community most concerned with quality educational programs. Each resource team is (1) involving local agencies in jointly planning a developmental program which takes advantage of current EDC resources and has promise for significant local impact; (2) arranging planning conferences, staff development workshops, and demonstration classes; and (3) providing access to new instructional materials and general professional assistance to school staff.

In the Cardozo district of Washington, D.C., the laboratory directed and managed a 5-week summer staff development conference which prepared a 14-member "innovation team" of teachers already in the system to help teachers use new methods and materials more effectively. This team is now training teachers in the Cardozo district schools, with top priority in reading instruction.

In Bridgeport, Conn., a new intermediate school and three feeder elementary schools are participating in the program. The school staff has visited EDC to learn of its curriculum development efforts and met in a planning conference with parents and community leaders. The staff development program, in which the University of Bridgeport has been participating, is now underway.

Programs in Boston and Brunswick-Rockland, Maine, are in an initial stage of development. Participating schools have been tentatively identified and meetings held with school staff to develop proposals for work in each community.

FAR WEST LABORATORY FOR EDUCATIONAL RESEARCH AND DEVELOPMENT

- Address** *Hotel Claremont, 1 Garden Circle
Berkeley, Calif. 94705*
- Region** *Northern California and Nevada
(excepting Clark County)*
- Governing Board** *The laboratory was established under a joint powers agreement. It is governed by a 22-man board of directors representing State and local educational agencies and other sectors of the public. E.J. Cain, dean, School of Education, University of Nevada, is chairman of the board of directors.*
- Staff** *The laboratory has a staff of approximately 40 professionals, which includes research workers in education, psychology, sociology, and anthropology. John Hemphill, former director, Developmental Research Division, Educational Testing Service, was named director in July 1966.*

The Far West Laboratory for Educational Research and Development (FWLERD) is focusing its resources in creating programs and techniques that will enhance the effectiveness of elementary and secondary school personnel. A major effort is directed to the development of self-instructional course packages for training experienced teachers to use a variety of specific instructional skills. In this work the laboratory builds on and extends the micro-teaching research conducted at the Stanford Center for Research and Development in Teaching supported by the Office of Education.

In a typical unit, called "minicourse" by the laboratory, a teacher studies instructional materials on one specific teaching skill and teaches a short lesson which is videotaped.

He then compares his teaching with that of a model teacher on videotape and reteaches the lesson. The laboratory has developed one complete course designed to change the elementary teacher's behavior in classroom discussion through questioning techniques, and is working on a unit to improve the teacher's ability in developing the language skills of kindergarten and first-grade Negro children. Among the courses scheduled for production is one that develops in teachers those skills required to conduct an individualized instruction program.

A second laboratory effort concentrates on improving the means by which school personnel are informed about alternative courses of action for improving classroom learning. A three-part program is in operation. The first element experiments with the use of educational television programs and written materials as a means for developing favorable attitudes about educational research and its utilization. Several pilot videotapes on such topics as microteaching and new programs for disadvantaged preschoolers as well as handbooks on education of Afro-American and Mexican-American children have been prepared and distributed for regional field testing. For the 1967-68 school year the laboratory sponsored a weekly television series of significant educational developments and a number of programs that focused on particular innovations.

Model systems are also being designed to provide school personnel with ready access to information at whatever depth required. One model is the "integrated information unit," a multimedia package of information about a specific educational innovation at both general and more detailed levels. In a third phase the laboratory is identifying and testing organizational arrangements that support the effective use of research information in schools by teachers and administrators.

The laboratory has undertaken several other activities. Among these are a handbook to assist schools in the measurement and evaluation of ESEA titles I and III projects, and the assessment of a unit of instruction produced by the Science Curriculum Improvement Study at the University of California, Berkeley, for its effectiveness in teaching culturally disadvantaged children.

MICHIGAN-OHIO REGIONAL EDUCATIONAL LABORATORY

Address 3750 Woodward Avenue
Detroit, Mich. 48201

Region Michigan and Ohio

Governing Board The laboratory is governed by an 18-man board of control chaired by J. Wilmer Menge, dean of the College of Education, Wayne State University. The board is elected from a general membership of 54 which is broadly representative of educational institutions and the lay public of the region.

Staff The laboratory has a permanent full-time staff of 28 professionals. The staff is led by Stuart Rankin, former curriculum coordinator, Detroit Public Schools, who has been with the laboratory since June 1966.

The Michigan-Ohio Regional Educational Laboratory (MOREL) has elected to concentrate its resources on designing and testing strategies for training experienced teachers to engage in continual analysis and improvement of their classroom behavior. Initially the laboratory will emphasize the testing of strategies for urban settings.

MOREL's program starts with the assumption that if a teacher perceives a difference between what he wants to do and what he actually does, he will be motivated to change his teaching behavior. To this end, the laboratory has integrated promising training techniques into an experimental inservice program which provides teachers with feedback as they practice new skills. Systems for coding and tabulating verbal interaction between the teacher and his class provide feedback for helping teachers identify skills which they want to improve and for assessing progress made. Simulation and other techniques are used in small groups to identify and practice selected teaching skills and behaviors. Microteaching training, based on research accomplished at the Stanford University Research and Development Center in Teaching, enables teachers to practice a new technique with small groups of pupils for short periods and analyze their performance on videotape.

This training sequence is designed for implementation in local schools through teams of teachers called field action units. Each unit consists of four to nine teachers in the same building who support each other's training through a common commitment for improvement. A few units have been established in Michigan and Ohio for pilot testing the effectiveness of the training strategy prior to more widespread field testing.

During the summer of 1968 an intensive pilot test was conducted in the first of 10 junior high central city schools in Detroit. The total resources available to a unit, and the degree to which teachers select their own objectives and training program, will be systematically varied, and the progress made by teachers under different conditions compared. An important criterion for success will be the teachers' continuing effort to improve, after the laboratory withdraws its support and leadership.

MID-CONTINENT REGIONAL EDUCATIONAL LABORATORY

Address 104 East Independence Avenue
Kansas City, Mo. 64108

Region Eastern Nebraska, western Missouri, eastern Kansas, and central Oklahoma

Governing Board The laboratory is governed by a 16-member executive committee drawn from an 80-member board of trustees composed of representatives of educational and other institutions in the region. The chairman of the executive committee is Orvin L. Plucker, superintendent of schools, Kansas City, Kans.

Staff Robert S. Gilchrist, former director of curriculum research, Educational Research Council of Greater Cleveland, became director of the laboratory June 1, 1966. He is assisted by 29 professional staff members comprised primarily of behavioral scientists and educators.

The Mid-Continent Regional Educational Laboratory (McREL) is developing education programs that will encourage students to be-

come increasingly self-directed in their learning. The laboratory is striving to identify patterns of student behavior associated with self-directed learning and to define what teachers can do to elicit such behavior from students. Tests are being designed to measure the extent to which self-directed learning occurs in a given teaching situation.

Classrooms using the new Biological Science Curriculum Study, which encourages self-directed inquiry, are being used as observation sites in identifying associated teacher practices and testing McREL's measurement instruments. In a related program, special factors are being identified and strategies developed which foster self-directed learning among the disadvantaged. This program has received financial support from the Danforth Foundation, the American Association of Colleges of Teacher Education, and 15 local colleges. The laboratory is also evaluating the usefulness of an inservice training program which provides the teacher with comprehensive data on each child and offers instruction on the uses to which this data can be put in fostering self-directed learning. Videotape equipment is being used extensively to record classroom teaching situations for subsequent analysis.

NORTHWEST REGIONAL EDUCATIONAL LABORATORY

Address	710 Southwest Second Avenue Portland, Oreg. 97204
Region	Alaska, Idaho, Montana, Washington, and Oregon
Governing Board	The laboratory is governed by a 24-member board of directors. George B. Brain, dean, College of Education, Washington State University, is chairman. An executive committee of five conducts the business of the laboratory between board meetings.
Staff	The laboratory has a full-time staff of approximately 27 professionals supplemented by shared-time personnel in program activities distributed throughout the region. Lawrence D. Fish, former director, Bureau of Educational Research, University of Oregon, was appointed executive director in June 1966.

The programs of the Northwest Regional Educational Laboratory (NWREL) have been designed to meet the special educational needs of a large region characterized both by rural isolation and poverty, and by the growing problems of the inner city resulting from urban expansion. To capitalize on the distributed resources of the region, program activities are located in educational institutions throughout the five-State area.

A major effort is aimed at the application of research findings and technological developments to classroom practice through inservice teacher training programs. Research findings currently being adapted for dissemination through this approach fall into two categories. An example of the first, instructional techniques that develop student's abilities to acquire, process, and use new knowledge, is inquiry training, as developed by Richard Suchman when at the University of Illinois, and others. The second group consists of techniques to assist school personnel in analyzing classroom instruction, such as the system designed by Morris Cogan of the University of Pittsburgh.

The laboratory is also working with regional and community education agencies to design, field test, and install model school programs that meet the special needs of inner-city, Alaskan native, and Indian children. Several pilot activities are underway. In Seattle, for example, the laboratory is assisting a consortium of teacher preparation institutions, teachers' associations, the State department of education, community agencies, and public schools in designing a model inner-city school. An interdisciplinary team representing many agencies is developing 12 levels of readers, remedial and resource materials, and teacher manuals for use with children in certain native Alaskan tribes. As part of an inter-laboratory effort, the laboratory has identified sites for demonstrating model nursery schools for Indian children and is providing technical assistance, instructional materials, and training.

The instructional problems of rural isolated schools which cannot be consolidated because of climate or topographic conditions are being attacked through the development of self-instructional, multimedia curricular materials and guidance programs. In the 1966-67 school year the laboratory worked with an ESEA title III project in preparing high school course

materials in vocational mathematics, industrial arts, and speech—subjects in which local teachers felt least prepared. In 1968 this effort was expanded to include Spanish, advanced mathematics, and physical sciences, and the laboratory will soon begin to design systems in mathematics and science for elementary levels. Planned for future development is a training program for preparing experienced teachers to serve as instructional managers when self-instructional curricular materials are used.

The laboratory is also designing a computer center to demonstrate computer applications in educational institutions selected for similarities in educational, geographic, and demographic characteristics. Among those to be demonstrated are computer-assisted instruction, instructional management, and administrative management of schools.

REGIONAL EDUCATION LABORATORY FOR THE CAROLINAS AND VIRGINIA

Address	Mutual Plaza Durham, N.C. 27701
Region	North Carolina, South Carolina, and southern Virginia
Governing Board	The laboratory has a constituent membership council of 55 members and an 18-member board of directors drawn largely from State educational agencies, school systems, and institutions of higher learning in the three-State region. The chairman of the board of directors is Dr. Prince B. Woodward, director, State Council of Higher Education, Richmond, Va.
Staff	Everett H. Hopkins, former vice president of Duke University, assumed full-time responsibility as president of the laboratory on May 1, 1967. There are 22 administrative and professional staff members.

The Regional Education Laboratory for the Carolinas and Virginia (RELCV) aims to improve higher education, regionally and nationally, and to select and introduce the most effective innovations in elementary and secondary education into the schools of its region.

RELCV is working initially with 20 colleges and universities to upgrade their educational practices. The presidents of these institutions assigned a personal assistant to work with the laboratory and within the college to identify and plan needed changes. The laboratory provides these representatives with 3 weeks of intensive training in the latest methods of institutional analysis. The training program includes specific case studies of problems encountered by other colleges. The laboratory will work for several years with each institution to formulate effective solutions to the specific problems identified. Simultaneously, the laboratory will design model programs to help similar colleges overcome specific difficulties common to many institutions of higher learning. The laboratory will also aid these colleges in their studies by gathering information on the influence of personal, social, and institutional considerations on the educational aspirations and achievements of high school and college students in their region.

Other higher education activities of the laboratory include the placement of graduate students in teaching jobs in regional colleges which need additional faculty. RELCV is also conducting a study to identify the contribution of humanists in college and university decision-making.

At the elementary and secondary level, the laboratory will identify and help to introduce outstanding new programs from across the Nation into schools in the region. For example, RELCV is currently making arrangements to introduce the Individually Prescribed Instruction program, developed by the Learning Research and Development Center at the University of Pittsburgh, into selected schools in the Carolinas and Virginia. The laboratory is also considering an adaptation of the Samoan educational television project to teach English as a second language to children in its region who speak a nonstandard English dialect.

17

RESEARCH FOR BETTER SCHOOLS, INC.

- Address** 121 South Broad Street
Philadelphia, Pa. 19107
- Region** Delaware, New Jersey, and eastern Pennsylvania
- Governing Board** The laboratory is governed by a 21-member board of directors, with equal representation from each State. Carroll W. Biggs, superintendent of the Wilmington, Del., school system, is chairman of the board.
- Staff** The laboratory employs a 55-member staff, 30 of whom are professionals. Its executive director, James W. Becker, former associate superintendent, Philadelphia Public Schools, has headed the laboratory since its establishment in February 1966.

Research for Better Schools, Inc. (RBS) has as its major program the field testing, monitoring, and further development of the Individually Prescribed Instruction (IPI) system developed by the Pittsburgh Learning Research and Development Center, and has also started a program to test the concept of research implementation teams within the structure of a school system.

In its IPI program, the laboratory has conducted summer institutes to train teachers and administrators in IPI methods and has monitored five demonstration schools with programs in reading and mathematics. In the fall of 1967, 21 other schools adopted IPI and approximately 65 more schools will test IPI math in September 1968. The laboratory has started working with the Pittsburgh Center to develop and screen science and other subject materials for the program. It is also developing programmed curriculums for teachers which are now being field tested.

In connection with an evaluation of this system, the laboratory is collecting pupil data from the participating IPI schools as well as eight control schools. The computerized data is also being used to develop a prototype, automated learning-management system that will allow instant feedback on individual student progress. RBS is also programming the IPI math placement tests for use in the computer system now in operation in the Philadelphia Public Schools.

The effects of introducing a research implementation team to assist the superintendent in decision-making are being tested. The laboratory will study the team concept in experimental situations, using the data derived from the study to specify the types of personnel needed to bring about change and to develop course materials that will train school personnel to assume these roles. A three-man team has been established in the Delaware State Department of Education to advise the State Commissioner on specific problems. RBS has made commitments to the New Jersey Urban School Development Council and the SPEEDFER Title III Center in Pennsylvania to set up research implementation teams within these organizations.

ROCKY MOUNTAIN EDUCATIONAL LABORATORY

- Address** 1620 Reservoir Road
Greeley, Colo. 80631
- Region** Colorado, Wyoming and portions of Arizona, Idaho, Montana, Kansas, and Nebraska
- Governing Board** The Rocky Mountain Educational Laboratory is governed by a 7-member board of directors drawn from a 50-member regional council. William Bishop, Superintendent of Schools, Englewood, Colo., is chairman.
- Staff** The laboratory has a core staff of 12 full-time professionals. Donald O. Bush, former professor of education and psychology at Central Michigan University, was appointed director on Sept. 1, 1968, to succeed James Thrasher, former dean of the School of Education at the University of Montana at Missoula.

The Rocky Mountain Educational Laboratory (RMEL) is concentrating most of its resources in the area of individual learning disabilities of children who, as a result of severe problems in learning to read, write, spell, speak, listen, and calculate, are unable to realize their intellectual and educational potential. According to the Council for Exceptional Children of the Na-

tional Educational Association, a child with learning disabilities is one who possesses "adequate mental abilities, sensory processes, and emotional stability, but who has a limited number of specific deficits in perceptual, organizational, or expressive processes which severely impair learning efficiency. This includes children who have central nervous system dysfunction which is expressed primarily through impaired learning efficiency."

The long-range goal of the individual learning disabilities program is to develop techniques that allow elementary schools to diagnose and remediate learning disabilities. Through training provided by the laboratory, 60 second-grade teachers are familiarizing themselves with available research in the field, techniques and materials for identifying the disabled, and promising classroom procedures for remediation. Many of those teachers participated in a laboratory-sponsored pilot study of 85 second-grade classrooms throughout the region to determine the frequency of the occurrence of learning disabilities. The teachers used a laboratory-developed classroom screening instrument in an effort to identify those children who might have disabilities that hinder their ability to learn basic cognitive skills. The test data will be validated in several of the classes by follow-up diagnosis by a team of medical specialists. If the pilot study uncovers a high enough incidence of learning disabilities, the laboratory will conduct a regional study of 7,000 second-grade classrooms. In preparation for this study, the 60 teacher specialists will participate in traveling seminars to familiarize the second-grade teachers in the region with the techniques to be used in the study. After the study is finished, the laboratory will concentrate on adapting existing materials or creating new ones to meet the particular needs of children handicapped by individual learning disabilities.

The Rocky Mountain Educational Laboratory is also working in the area of occupational education, mostly in program planning.

SOUTH CENTRAL REGION EDUCATIONAL LABORATORY

Address 302 National Old Line Building
Little Rock, Ark. 72201

Region Arkansas, Mississippi, and parts
of Oklahoma, Kansas, Missouri,
and Louisiana

**Governing
Board** The laboratory is governed by
a 15-man board of directors
elected from a corporate mem-
bership of the lay community.
The board is chaired by Mr. Jack
Grimmett of the Pauls Valley
National Bank, Pauls Valley, Okla.
A regional council of educators
advises the board in program
matters.

Staff The laboratory has been directed
since April 1, 1968 by Dr. J. D.
Williams, chancellor emeritus of
the University of Mississippi. He
is assisted by a professional staff
of 15.

The South Central Region Educational Laboratory (SCREL) is committed to the development of early childhood education programs for the culturally disadvantaged, with initial emphasis on the improvement of the basic skills and self-concept of three populations in the region: the Negro of the Mississippi Delta, the rural poor of the Ozarks, and the non-reservation Indian of Oklahoma and Arkansas. The laboratory's long-range goal is to become a significant resource in early childhood education programs and to contribute to improved planning for and use of title I funds from the Elementary and Secondary Education Act (ESEA) allocated to the six States of its region. SCREL has adopted the strategy

of developing, field testing, and demonstrating model programs in home-school coordination, compensatory preschool and programed instruction for early childhood education.

The home-school coordination program is designed to compensate for the absence of kindergartens throughout the region. Two program activities are being conducted to develop pupil readiness for school in terms of basic skills and self-concepts: (1) a Saturday school in which Ozarka parents observe their children being taught by qualified instructors, participate in specific learning experiences, and conduct home projects designed to supplement the work at school; and (2) a bilingual program in which Cherokee Indian parents and children learn to speak English through activities designed to capitalize upon the Cherokee culture.

Three field activities are being conducted in the compensatory preschool program: (1) evaluation of the achievement of culturally disadvantaged children enrolled in a socially integrated, private kindergarten; (2) development of a curriculum designed to compensate for perceptual learning disabilities common to many children of poverty; and (3) field testing of two compensatory kindergarten programs—a cultural enrichment approach and a diagnostic teaching approach—applied to rural children in Ozarka.

Two programed instruction methodologies are being field tested in selected rural schools of Mississippi: (1) teaching procedures, patterned after those developed by Siegfried Engelmann at the University of Illinois, to improve the understanding and usage of standard English by Delta primary pupils with dialectal speech patterns; and (2) procedures and materials in computer-assisted instruction, developed by Patrick Suppes of Stanford University, with culturally disadvantaged first-grade children.

SOUTHEASTERN EDUCATION LABORATORY

15

Address 3450 International Boulevard
Hapeville, Ga. 30054

Region Alabama, Florida, and Georgia

Governing Board The Southeastern Education Laboratory is operated by Southeastern Educational Corporation, Inc., which is chartered as a non-profit institution. The organization is governed by a 15-member board comprised of laymen and representatives from colleges of education, State educational agencies, and public schools. H. Titus Singletary, Associate State Superintendent, State Department of Education, Atlanta, Ga., is chairman of the board. The board of directors is elected by a 64-member regional council which is broadly representative of lay and educational interests across the region.

Staff Robert L. Hopper, former director, Division of State Agency Cooperation, Bureau of Elementary and Secondary Education, U.S. Office of Education, became director of the laboratory on July 11, 1966. The laboratory has 23 professional staff members.

The Southeastern Education Laboratory (SEL) develops programs and strategies to improve the education offered to deprived children in its region. The laboratory cooperates with 24 schools which serve as experimental and demonstration sites to test new ways for instructing disadvantaged students.

The improvement of communication skills and interpersonal relations are current goals of the laboratory program. Videotape recordings are being made of classroom sessions in a dozen schools. In order to identify and define specific barriers to effective communication,

the laboratory is analyzing these tapes in terms of the linguistic, emotional, and cultural dimensions of classroom communication which they reveal. At the same time, existing language curriculum materials will be collected and analyzed to determine how effectively they address the problems identified in the tapes. Instructional materials will be designed or adapted to improve the ability of disadvantaged students to communicate with each other and with the standard English-speaking majority of the population. In a related program the laboratory is testing the usefulness of two instructional strategies designed to improve the interpersonal relations of students, teachers, administrators, and parents. Based on their field-testing experiences and the analysis of the emotional and cultural dimensions of classroom communication the laboratory will modify existing materials and programs dealing with interpersonal relations to make them more effective in serving disadvantaged students.

To help other educationally deprived children in the region, the laboratory maintains a Bilingual Materials Center in Miami, Fla., supported by the U.S. Department of State with supplemental funds from the Office of Economic Opportunity. SEL is also utilizing six mobile preschool units in six school districts in its region to evaluate the effectiveness of a preschool instructional program for rural isolated children.

SOUTHWEST EDUCATIONAL DEVELOPMENT LABORATORY

- Address** 800 Brazos Street
Austin, Tex. 78767
- Region** Texas and Louisiana
- Governing Board** The laboratory is governed by a 22-member board of directors. R. F. Howe, vice president of the Baton Rouge Refinery of the Humble Oil and Refinery Company, is chairman.
- Staff** The laboratory staff consists of 56 full- and part-time professionals. Edwin Hindsman, previously the associate director of the Research and Development Center in Teacher Education, University of Texas, is director of the laboratory.

The Southwest Educational Development Laboratory (SWEDL) is concentrating its efforts on the educational achievement of the Mexican-American, the Negro-American, and the French-Arcadian.

The laboratory will develop and demonstrate instructional programs, materials, and activities to meet the unique needs of the Mexican-American population. It has designed a pre-school program for 3-, 4-, and 5-year-old children which emphasizes the building of positive self-concepts, the development of cognitive skills, the development of oral and written language competency in Spanish and the introduction of English as a second language. The laboratory is also developing a bilingual elementary curriculum in which Spanish is used in teaching subject-matter while the student is in the process of learning English. Both languages are taught by first developing the student's oral proficiency and by subsequently using science, social studies, or mathematics materials. Formal reading instruction is begun after speaking has been mastered. The laboratory is also developing a bilingual program for adult Mexican-Americans with funds obtained from the Office of Economic Opportunity. Realizing the need for qualified personnel to implement the new programs in education for Mexican-Americans, the laboratory is not only providing inservice training opportunities for experienced teachers but is also planning a model preservice program for college students who will teach and counsel Mexican-American children.

The goal of the Negro education program is to raise the educational achievement level and aspiration of Negro students. The three-part program is composed of early childhood education, parent-school partnership, and staff development. The heart of the early childhood program is an activity-oriented curriculum which provides learning experiences in communication, science and number work, fine arts, motor skills, health and physical education, and in the socialization process. In all curricular materials, special attention is being given to the involvement of the children in structured situations which give rise to questions, lead to creative and intuitive thinking, and approach learning inductively.

In its parent-school partnership program, parents of elementary school children, in concert with school personnel and community leaders, are participating in activities designed to attract and involve them in school and community programs. Parents are speaking at school assemblies, sponsoring field trips for students, participating in community betterment groups, and taking courses at night to improve their literacy.

In the laboratory-designed staff development program, teachers are participating in a program to teach the disadvantaged Negro child more effectively. Attention is being focused on improving the language patterns of the teachers and their competency to teach language arts. During a 9-week program, teachers will spend 2 hours each day in learning to analyze their teaching performance, diagnose learning problems, and design problem-solving approaches. They will then work 3 hours in their classrooms, making immediate transfer of the new skills and knowledge.

SOUTHWEST REGIONAL LABORATORY FOR EDUCATIONAL RESEARCH AND DEVELOPMENT

- Address** 11300 LaCienega Boulevard
Inglewood, Calif. 90304
- Region** Southern California, southern Nevada, and western Arizona
- Governing Board** The laboratory is governed by an 18-member board of directors composed of representatives from institutions of higher education, State departments of education, school districts, private research organizations, and industry. The chairman of the board is Jack Crowther, superintendent of Los Angeles City Schools.
- Staff** The laboratory has a staff of approximately 100 full-time professionals and is headed by Richard Schutz, former professor of educational psychology, director of testing services, and codirector of the Classroom Learning Laboratory at Arizona State University.

The Southwest Regional Laboratory for Educational Research and Development (SWRL) has assigned initial priority to four program areas: communication skills, generalized problem-solving skills, computer-managed instruction, and administrative planning.

The goal of the communication skills program is to design and develop instructional materials and methods to teach children in grades K-4 to read, write, speak, and understand. The products of this program will include oral language development procedures, reading and listening books, specific lessons on isolated skills, and the teaching techniques suggested for use of the material. The laboratory has designed and produced materials for a 30-week kindergarten reading program to develop word recognition, comprehension, and phonic skills based upon a vocabulary of 100 carefully selected words. Two of the daily lessons per week are devoted to reading short, illustrated storybooks and two others are concerned with oral communication, comprehension, and phonics. The fifth lesson is selected by the teacher from a variety of suggested oral and written communication games and activities. During the year the child builds his own home library of approximately 60 books. While trying out these materials on approximately 2,250 children in 100 classrooms throughout the region, the laboratory is adapting the kindergarten materials for populations who do not speak a standard dialect (for example, Mexican-American and Negro-American students), for older beginning readers, and for remedial situations. The laboratory is also designing the second- and third-year communication skills program.

The objective of the problem-solving skills program is to design and develop a curriculum to teach kindergarten children basic problem-solving skills, and children in grades 1-4 the more complex problem-solving processes relevant to mathematics, biological sciences, and the physical sciences. The kindergarten program, geared to the culturally disadvantaged, has been designed to teach children certain simple concepts such as color, size, shape, and numbers. The program consists of 35 lessons. Each lesson contains a set of specified objectives, two to four pictures, a story to accompany the pictures, sample questions, and lists of supplementary activities and discussion topics. These materials will be tried out in a large number of classrooms beginning in September 1968.

The computer managed instruction system is being developed to free the teacher from routine tasks by assisting her in monitoring and recording the details of each child's performance. Students' work in four first-grade classrooms in reading, reading readiness, and mathematics is marked by a computer. Their schools are connected by teletype with the computer facilities at System Development Corporation, Santa Monica, Calif., which has been developing the system under contract with SWRL. The children are working on special sheets collected each afternoon for analysis by the computer's optical scanner. The next morning the teachers receive printouts giving individual and group scores, and indications of areas in which additional instruction is needed. Teachers are able to get answers to specific questions about an individual child's work by communicating directly with the computer from the teletype terminal in the school.

The same question-and-answer technique is central to an administrative planning system being tested in a California school district. The system has been developed to assist the administrator in collecting and analyzing pertinent information for decision-making. The system is now restricted to administrative budget planning for personnel costs only. However, the laboratory is expanding the system to include educational and program-budget planning capabilities.

The staff training program has developed materials for inservice training of school research personnel, for product developers who design and produce curricular materials, and for teachers and other educational personnel who use the laboratory's curricular materials. Three kinds of self-instructional materials are being developed and tried out in a variety of educational settings: (1) single concept packages which teach generalizable concepts, mainly from psychology, such as stimulus, response, conditioning, and punishment, (2) general procedure or "how to" guides for specific procedures such as formulating the research problem, planning the research proposal, and writing the research report, and (3) packages which teach the skills involved in instructional product development.

SOUTHWESTERN COOPERATIVE EDUCATIONAL LABORATORY

- Address** 117 Richmond Drive, N.E.
Albuquerque, N. Mex. 87106
- Region** New Mexico and portions of Arizona, Oklahoma, and Texas
- Governing Board** The laboratory is governed by an eight-member executive board drawn from a 28-member regional council. The chairman of the board is Jesse Stratton, former president of the National Association of School Boards.
- Staff** To implement its four program modules, the laboratory has assembled a 20-man interdisciplinary staff including specialists in reading, psycholinguistics, psychology, anthropology, and media. In the summer of 1968, Paul Petty, former professor of education and chairman of educational and administrative services at the University of New Mexico, was succeeded in his duties as director by James L. Olivero. Mr. Olivero is the former executive secretary of the National Commission on Teacher Education and Professional Standards of the National Education Association.

The long-range goal of the Southwestern Cooperative Educational Laboratory (SWCEL) is to develop materials and methods for teaching language arts in the primary grades to children of culturally diverse groups. The populations on which SWCEL is focusing are the Spanish-Americans and the Navajo and Pueblo Indians.

The laboratory is concentrating its resources in two major areas. The first is curriculum development in oral language skills. Initially, the laboratory is examining existing oral language materials and methods to determine their efficiency in teaching English as a second language and to determine their cultural relevance for Spanish-American and Indian children. The materials were developed by the Center for Applied Linguistics at the University of California in Los Angeles, with funds from the U.S. Office of Education. During the 1967-68 school year, the oral language lessons were field tested with 200 Spanish-American and 19 Navajo first-grade and 20 Navajo headstart students at El Paso and Smyer, Tex.; at San Miguel and Canoncito, N. Mex.; and at Douglas, Ariz. The skills and behavior patterns necessary for entry into an oral language program are also being studied. The laboratory is developing a program to train teachers of Navajo children who are entering school for the first time in techniques that assure the children will learn to speak easily, audibly, and intelligibly.

The second area of laboratory concentration involves research concerning how environmental factors in the home and the community contribute to or detract from early language development and how the classroom environment influences student performance in the language arts. In the latter, SWCEL is investigating various methods of managing classroom materials, procedures, and teacher behavior which will allow the language arts curricular materials to be presented most effectively. For instance, the effects on classroom learning of systematically rewarding Spanish-American and Indian students are being studied.

All of SWCEL's activities have been integrated into a first-grade instructional package for Spanish-American and Indian children, which will be tried out during the 1968-69 school year. The first-grade program includes training materials for teachers based upon the research into the learning styles of different cultural groups and upon the research into classroom management techniques, the improved oral language materials, and entry skills information.

UPPER MIDWEST REGIONAL EDUCATIONAL LABORATORY

- Address** 1640 East 78th Street
Minneapolis, Minn. 55423
- Region** Iowa, Minnesota, North Dakota, South Dakota, and Wisconsin
- Governing Board** The laboratory is governed by a 12-member executive committee drawn from a 55-member board of directors. The board is representative of both educational and lay interests in the region and is elected by State councils established in each of the five States of the region. Max Goodson, professor of educational policy studies at the University of Wisconsin, is chairman of the executive committee.
- Staff** The laboratory has a central professional staff of 27 under the direction of David Evans, former director of research for the California State Committee on Public Education.

The Upper Midwest Regional Educational Laboratory (UMREL) initially supported a broad variety of activities in an effort to identify individuals and institutions actively concerned with the improvement of education in its five-State region. This early experience led the laboratory to focus its effort on programs which improve teacher competence through better articulation of preservice and inservice experiences. Activities are now being conducted in two broad areas—those which extend or restructure the preservice "clinical" experiences of teachers, and those which prepare school staffs to work effectively with changing organizational patterns and new instructional resources.

Within the first program area, the laboratory is investigating clinical experiences which focus

on the preparation and role of cooperating teachers, utilize joint appointments between schools and colleges, emphasize preparation for the special needs of urban teaching, and utilize para-professionals on a teaching team. The laboratory will also develop theoretical models for an entire teacher preparation program. A conference series, involving 88 of the region's 95 teacher-preparation institutions, has been initiated to stimulate self-assessment and to provide a basis for future evaluation of the impact of the laboratory's programs.

Within the second program area, the laboratory is developing inservice programs to prepare school staffs to work effectively with new curriculums and changing school organization patterns. Planning has been initiated for an intensive survey of new curriculums available to schools. The laboratory will then identify the competencies necessary for adoption or adaption of those materials and develop procedures both to train inservice teachers and to modify existing preservice programs. An experimental laboratory comprised of 16 study carrels, each equipped to illustrate a science concept and designed to provide individualized instruction for both pre- and inservice science teachers, has been completed, and a new series of carrels is being designed. UMREL is also evaluating the effectiveness of sensitivity training in helping school staffs to adjust to major changes in organization and methods of instruction.